the odds that a young person will become a responsible, productive, taxpaying citizen rather than a permanent ward of the state.

The bill we are introducing today, the Mental Health Juvenile Justice Act, would help create alternatives to incarceration, particularly for first time non-violent offenders, and improve conditions in youth correctional institutions by:

Providing funds to train juvenile justice personnel on the identification and need for appropriate treatment of mental disorders and substance abuse, and on the use of community-based alternatives to placement in juvenile correctional facilities.

Providing block grant funds and competitive grants to states and localities to develop local mental health diversion programs for children who come into contact with the justice system and broaden access to mental health and substance abuse treatment programs for incarcerated children with emotional disorders.

Establishing a Federal Council to report to Congress on recommendations to improve the treatment of youth with serious emotional and behavioral disorders who come into contact with the justice system.

Strengthening federal courts' ability to remedy abusive conditions in state facilities under which juvenile offenders and prisoners with mental illness are being held.

We need to reform our juvenile justice system to ensure that it preserves the basic rights and human dignity of the children and youth housed in its facilities. And, while alternatives to incarceration may not work for all youth, for those who must serve time in a juvenile correctional facility we have an obligation to ensure that they have access to appropriate medical and psychiatric treatment and qualified staff.

The Mental Health Juvenile Justice Act offers these reforms and includes the appropriate safeguards for youth who would be better served in mental health and substance abuse treatment programs. I look forward to working with my colleagues in enacting this legislation.

TESTIMONY OF ARTHUR T. KATSAROS

HON. MELISSA A. HART

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, June 14, 2001

Ms. HART. Mr. Speaker, today the House Science Committee, subcommittee on Energy, held a hearing on the ''President's National Energy Policy: Hydrogen and Nuclear Energy Research and Development Legislation.'' One gentleman that was asked to testify was Arthur T. Katsaros, who spoke on behalf of Air Products and Chemicals, Inc., a Pennsylvania based company that has been researching and developing the utilization of hydrogen as a fuel source. With the recent coverage of energy and our plans for future use in the United States, I would ask that his testimony be submitted for others to view and learn more about this abundant source:

INTRODUCTION

Mr. Chairman, Ms. Woolsey, and members of the Subcommittee, thank you for the opportunity to testify this morning on a subject that may seem futuristic but is actually upon us—the utilization of hydrogen as a fuel source. No matter what one's perspective is on climate change and the role of fossil fuels in the current economy, there is a broad consensus that the United States and the world are moving toward a ''hydrogen economy'' in which fuel is abundant, efficient, renewable, and non-polluting. There is debate over how soon hydrogen will be widely available as a fuel source, but little debate over hydrogen's many virtues. I am pleased to address the viability of hydrogen as a fuel source today and in the years and decades ahead, and to address perfectly legitimate concerns about assuring its safe use. I ask that my full testimony be submitted for the record.

I am Arthur Katsaros, Group Vice President for Engineered Services and Development with Air Products and Chemicals, Inc, a Fortune 500 company based in Allentown, Pennsylvania, and with operations throughout the world. Air Products is among, the world's largest companies in the industrial gas business, and is the leading producer of third-party hydrogen worldwide. Air Products is a recent past chair of the National Hydrogen Association (NHA), whose members include industrial gas producers, automobile manufacturers, energy providers, chemical companies, universities, and research institutions. I am pleased to be appearing on behalf of both Air Products and the NHA.

SUPPORT FOR HYDROGEN FUTURE ACT

NHA members wholeheartedly support reauthorization of the Hydrogen Future Act. Indeed, given the focus on hydrogen in the National Energy Policy recently released by the White House, we hope that funding for hydrogen will be increased rather than held constant. The timing is right for the United States to be putting scarce research and development resources into hydrogen as a fuel source.

The public is clearly committed to environmental protection. Energy concerns have also come to the fore, both as a result of electricity disruptions in California and the higher fuel prices that we all are facing. Policy makers will find it impossible to discuss energy policy without having to also debate environmental impact. Embracing hydrogen certainly appears to be one answer to the tension between a clean environment and bountiful energy—it provides a method for delivering energy to stationary as well as mobile sources without pollution (its byproduct of combustion is water).

For reasons of environmental protection and sustainability, America needs to be on a path that relies increasingly less on carbon as a source of energy—we have moved over the past 150 years from coal, to oil, to natural gas, and we believe eventually our economy will be based primarily on hydrogen.

HYDROGEN IS A SAFE FUEL SOURCE

Every day, millions of pounds of hydrogen are used—and used safety—in hundreds of industries across the country and around the world (50 million pounds daily in the U.S. alone). As the world's largest third-party hydrogen generator and supplier, Air Products has been addressing hydrogen safety, storage, transportation and other infrastructure concerns for decades. We put an extremely high value on safety at Air Products. The American Chemistry Council last year gave Air Products its highest award for safety. Our experience shows that hydrogen can be handled safely when guidelines for its safe storage, handling and use are observed.

Hydrogen is a fuel, and as a fuel it has combustible properties. Hydrogen's combustion properties warrant the same caution any fuel should be given, and like all fuels there are safety measures unique to hydrogen (most people do not refill their own propane tanks, for example, yet propane is widely used at home). There is no scientific or practical barrier to the safe use of hydrogen as a fuel.

Safety technologies for hydrogen have progressed in several areas. Gas detection and measurement capability has advanced based in part on the extensive investment of the Department of Energy in the last few years. Several of these technologies are becoming available as commercial products. Hydrogen flame detection has progressed mainly from the commercialization of technology used by the National Aeronautics and Space Administration (NASA). NASA today uses infrared and ultraviolet detection systems that can detect not only invisible flames produced by burning hydrogen, but also those hidden behind a screen of smoke. In addition, a series of hydrogen sensors has proven to be capable of detecting hydrogen leaks prior to ignition.

Air Products operates hundreds of miles of hydrogen pipelines in the U.S. In California alone, we produce approximately 300 million standard-cubic-feet-per-day of hydrogen, which is transported to petroleum refiners in the state to reduce the sulfur, olefins and aromatics content in transportation fuels. Safety is the paramount concern in the operation of our hydrogen pipelines. Our pipeline integrity management program—which exceeds regulatory requirements—includes risk assessment studies that typically result in the use of multiple safety technologies on our hydrogen pipelines, including heavier pipeline wall thickness, excess flow valves and isolation valves, along with intensive testing, inspection and maintenance procedures. We have been working closely with the U.S. DOT Office of Pipeline Safety on the development of regulations increasing safety practices on hydrogen and other flammable gas pipelines. The promulgation of these regulations will be critical to the development of a safe and reliable hydrogen pipeline infrastructure in the U.S.

In addition to delivering hydrogen to customers through pipelines, Air Products also liquefies hydrogen at cryogenic temperatures (−423 °F) and transports it by truck and barge. We drive 15,000-gallon hydrogen tanker trucks millions of miles per year on U.S. highways without incident. NASA, the largest consumer of liquid hydrogen in the world. has been buying hydrogen for the space program from Air Products for over 35 years under consecutive competitive contracts, totaling over 300 million pounds of liquid hydrogen. Every Space Shuttle flight has been powered by our liquid hydrogen.

CODES AND STANDARDS TRANSLATE INTO PUBLIC TRUST

Hydrogen energy safety is based on three primary elements: regulatory requirements, capability of safety technology, and the systematic application of equipment and procedures to minimize risks. Industry currently implements many successful proprietary methodologies for safely handling large amounts of hydrogen. There are several codes and standards specifically for hydrogen fuel applications that are under development by international, U.S. and industry organizations (including ISO, DOE and NHA). There are also many efforts underway to standardize hydrogen system component manufacture for hydrogen safety in a variety of potential commercial hydrogen market applications.

Widespread hydrogen use will require that safety be intrinsic to all processes and systems. To develop a hydrogen infrastructure

that has the public's confidence in its safety and convenience, an industry consensus on safety issues is required. This includes the development of compatible standards and formats (e.g., the same couplings for dispensing the same form of fuel). Product certification protocols are also required. The development of codes and standards for the safe use of hydrogen is an essential aspect of the U.S. Department of Energy Hydrogen Program.

Utilizing industry expertise and coordinating with government and other official entities, this barrier to commercialization may be overcome, allowing siting of hydrogen components and systems on a worldwide basis. Indeed, the NHA works with leading code- and standard-setting organizations around the world to develop and publish industry consensus standards that account for the outstanding safety record of hydrogen. The workshops, technical meetings, manuals, reports, and sourcebooks of the NHA characterize an industry that wants to leave no stone unturned in a commitment to safety and public trust. We will continue to work with policy makers on standards and codes that promote safety and encourage public confidence in the use of hydrogen in fuel cells and direct combustion.

COMMERCIALIZATION IS COMING, BUT IT REQUIRES GOVERNMENT SUPPORT

Our international competitors—often with major help from their governments—are pouring substantial resources into hydrogen research. We believe that hydrogen will be widely used commercially within a generation—if not in the United States, then surely in Western Europe, where a consensus exists that climate change must be addressed. The Japanese have a $2.8 billion long-term hydrogen program called World Energy Network. Major automakers around the world are planning to sell fuel cell cars within the next five years. Clearly, the race for global dominance in hydrogen fuel technology has begun.

Through our involvement in multiple demonstration projects in North America and Europe, Air Products is very much engaged in the race to commercialize hydrogen technologies. Some examples of our involvement include the design and installation of fueling systems for a hydrogen fuel cell bus demonstration program for the Chicago Transit Authority; Ford Motor Company's fuel cell automobile development facility in Dearborn, Michigan; and a fleet of fuel cell service vehicles for the Palm Springs, California's Airport. Air Products is leading the hydrogen fuel provider team for the California Fuel Cell Partnership. In the next three years, more than 70 fuel cell-powered cars and buses will be placed on the road from the Partnership's West Sacramento facility. We recently installed a gaseous hydrogen fueling station in Atlanta, Georgia for a hydrogen fuel bus project conducted by a consortium of companies led by the Southeastern Technology Center. Air Products has successfully tested the use of Hythane—a blend of hydrogen and natural gas used as an ultra-clean fuel—in projects in Denver, Colorado, and Erie, Pennsylvania. This year we participated in the demonstration of a stationary fuel cell generator that was used to power air quality monitoring equipment used by the Texas Natural Resource Conservation Commission. And Air Products is currently leading a team that will build and operate an on-site hydrogen production facility, fuel cell power plant, and a fueling station capable of dispensing hydrogen and hydrogen-blended fuels to fleets of buses and light duty vehicles in Las Vegas, Nevada. Almost all of these projects have one thing in common: the active support and partnership of government entities.

The hydrogen industry recognizes that the markets will ultimately dictate the commercial success of hydrogen. However, we note that a White House that prides itself on its faith in the markets has, in its recent National Energy Policy, supported tax credits for fuel cell vehicles. We suggest that such credits, which would stimulate demand for hydrogen, need to be matched by credits to stimulate hydrogen supply if government is serious about supporting hydrogen utilization. For example, a tax credit for plant and equipment that generates and distributes hydrogen would help develop the infrastructure needed to supply fuel cell vehicles and stationary power generators. Without such an infrastructure, it is less likely that fuel cell manufacturers will have success in selling mass quantities of fuel cells that cannot easily be refilled.

Beyond tax credits, vibrant funding of the hydrogen program at DOE—especially research into improved hydrogen storage—will help lead the country toward widespread commercialization of hydrogen fuel. Utilization of hydrogen fuel on urban bus fleets and other government vehicles, perhaps combined with applications of fuel cell power plants at federal facilities, will demonstrate the role of hydrogen and, by increasing demand, help drive down costs.

CONCLUSION

The United States is poised to take a leadership role in the development and commercialization of the global hydrogen economy. Hydrogen's utilization promotes clean air and water, makes the United States more competitive internationally, and ultimately holds

Through R&D programs and demonstration projects supported by the DOE and other government agencies, new hydrogen technologies will be tested and prepared for commercial use;

By its own use of hydrogen technologies, government will play a key role in stimulating the development of a hydrogen infrastructure;

And by driving the development of standards and regulations, government will help with the issues of storage and safe handling of hydrogen required for public confidence.

We are pleased this Committee shares the view that hydrogen plays an integral role in energy planning for the future. It is our hope that Congress will take a vital step toward this future by its prompt consideration and passage of the Hydrogen Future Act. We look forward to working with this Committee, with Congress generally, and with an Administration that has identified the need for an increased role for hydrogen to satisfy our energy needs in the near future and beyond.

THE ''CONSUMER ENERGY COMMISSION ACT OF 2001''

HON. BOBBY L. RUSH

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, June 14, 2001

Mr. RUSH. Mr. Speaker, today, I am pleased to introduce a House companion bill to S. 900, the "Consumer Energy Commission Act of 2001," which was introduced on May 16, 2001, by Senator RICHARD J. DURBIN of Illinois.

Over the past several years, the nation has been hit with one energy crisis after another. In the midst of all but one of those crises, energy consumers have heard from the "expert" after "expert" that the marketplace is to blame.

While consumers, industry representatives, and public officials may disagree over whether the crisis of the day has more to do with market forces than with gouging, but ultimately, we can all agree that this country needs a comprehensive energy policy. Clearly, the Administration should be commended for its attempt at articulating such a strategy. However, the report reflects almost exclusively, the interests and concerns of the energy industry.

Unfortunately, today's energy market is controlled by relatively few huge corporations, which do not always have the best interests of the public at heart. Many consumers are not convinced that making more resources available to these companies will magically fix the market. Moreover, consumers are not convinced that deregulation, and restructuring, without strict policing of the industry, will create enough competition to alleviate the stranglehold that those companies have over the industry, and indeed the pockets of energy consumers.

It is in response to this constant and pervasive threat of market abuse and manipulation, that I introduce the "Consumer Energy Commission Act of 2001." The Act would create the Consumer Energy Commission, (CEC), which would in turn analyze the energy market from the consumer's perspective and give recommendations on how to protect the public from opportunistic, and abusive behavior in the market by energy companies. This bipartisan body would consist of 11 members from consumer groups as well, as energy experts from the industry and federal government.

While there may be disagreement over what caused, and what steps should be taken to solve our current national energy dilemma, it cannot be disputed that consumers are paying astronomical prices for energy, while large companies are yielding even more astronomical profits. With this thought in mind, I am proud to introduce the "Consumer Energy Commission Act of 2001," which will stand as an important step in assisting those who have suffered most during the current series of regional and national energy crises—the hard-working consumer.

PERSONAL EXPLANATION

HON. THOMAS H. ALLEN

OF MAINE

IN THE HOUSE OF REPRESENTATIVES

Thursday, June 14, 2001

Mr. ALLEN. Mr. Speaker, on June 13, 2001, 1 was unavoidably absent for two rollcall votes. Had I been present I would have voted "yea" on rollcall vote 160, the Sudan Peace Act, and "yea" on rollcall vote 161, a resolution relating to human rights in Afghanistan.